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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,966	12/23/2003	Patrick Willem	920522-95347	9399
23644 7590 12/22/2008 BARNES & THORNBURG LLP P.O. BOX 2786 CHICAGO, IL 60690-2786				
EXAMINER				
DINH, DUC Q				
ART UNIT		PAPER NUMBER		
2629				
NOTIFICATION DATE		DELIVERY MODE		
12/22/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent-ch@btlaw.com

Office Action Summary

Application No.

10/743,966

Applicant(s)

WILLEM ET AL.

Examiner

DUC Q. DINH

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/11/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 24-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is responsive to the Applicant Request for reconsideration filed on September 11, 2008.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Matthies (U.S. Patent No. 6,498,592).

In reference to claim 1, Matthies discloses in Figure 1, a tiled emissive display (100) for displaying an image, the tiled emissive display (100) comprising a plurality of emissive display tile assemblies (122, 124) mechanically coupled together, and

a processing means (134) for performing real-time calculations with respect to the image to be displayed,

wherein the processing means is a distributed processing means (134) distributed over the plurality of emissive display tile assemblies (120, 124), so that each emissive display tile assembly (120, 124) is suitable for handling a different portion of the image for performing real-time calculations (see Fig. 2)

Matthies further discloses the tiled emissive display (Fig. 1) wherein the distributed processing means (134) performs real time calculations of lifetime of the pixels correspondent display tile (a processing perform calculation various pixels at the circuitry 134 may include an compensation system which continuously adjusts (real time calculations) the brightness of the individual pixels to compensate for the lifetime; the brightness of an OLED pixel that occurs with aging (lifetime) can be predicted by measuring the current and the time. This product can be fitted to a characteristic curve and used to adjust the drive current to predict a new drive current which restores the original brightness level of the pixel,...the decay in the brightness and the initial decay slope (light output) can be measure during the burn in (ON time or lifetime of the pixels) and used as a second order correction; see column 11 lines 1-15, also see another method using the claimed ON time, the brightness for performs real times calculations of the life time of the pixels of the correspondent display tile as described in column 11, lines 21-54)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-28 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthies as applied to claim 1 above, and further in view of Cok.

In reference to claim 24, Matthies does not disclose the processing means further performs image upscaling or downscaling at each emissive display tile assembly; Cok discloses a tile emissive display (8) comprising a plurality of emissive display (10) having a distributed processing means in Fig. 4 performing image up/down scaling at each emissive tile as claimed [col. 3, 38-43; col. 4 lines 34-47].

It would have been obvious for one of ordinary skill in the art at the time of the invention to learn the teaching of performing image upscaling or downscaling at each of the tile as taught by Cok in the device of Matthies for the advantage that the tiled display is more easily scaled, has simple communication protocol and does not require a common bus structure or clock signal for implementation (col. 2, lines 13-16 of Cok).

In reference to claim 25, Cok discloses for the image upscaling or down scaling a high-level scaling algorithm is used (col. 4, lines 28-43).

In reference to claim 26, Cok discloses wherein for the image upscaling or downscaling a high-level scaling algorithm is a 100% accurate scaling algorithm (col. 4, lines 6-18).

In reference to claim 27, Cok discloses the distributed processing means of the plurality of emissive display tile assemblies (10) operate in parallel (see Fig. 5).

In reference to claim 28, Cok discloses an emissive display tile assembly (10) is provided with a data input and/or a data output connection for receiving data from or

transmitting data to another emissive display tile assembly (10) via any of a multi-line connection (see Figs. 1 and 4).

In reference to claim 31, Matthies (Fig. 2) and Cok discloses in each emissive display tile assembly (10) is provided with a local memory means (36 in Fig. 4 of Cok) for storing configuration data (col. 3, lines 10-15)..

In reference to claim 32, Cok discloses a tile is adapted so that it can be repaired while other tiles continues working (col. 4, lines 50-60)

In reference to claim 33, Cok discloses the display has an adjustable size (col. 2, lines 40-41 and col. 4, lines 48-49).

In reference to claim 34, Matthies (col. 4, lines 3-6) and Cok (col. 5, lines 50-55).discloses the display is an OLED display

In reference to claim 30, Cok discloses an improved design for providing data signals to a tiled display that is expansible, readily scales to larger size tile arrays, does not require a single common hardware connection device and can be self-configured, is provided through the use of a *serial electronic connection* from one display tile to the next and originating from a single controller. Each display tile is connected to two neighbors and communicates with each neighbor. A display tile at the end of the series of display tiles will only communicate with the single neighbor to which it is connected (col. 2, lines 42-50). But Cok does not specifically that a connector allowing to combine both power and data transmission.

It would have been obvious for one of ordinary skill in the art at the time of the invention to recognize the use of connector allowing to combine both power and data

transmission is well known to provide compact system in the art of display are widely used for reducing the size of the system.

Furthermore, absent a showing of critically and/or unexpected result, it would been obvious to one of ordinary skill in the art to combine the power and data transmission as a connector for display system as desired as was judicially recognized with *In re Larson*, 144 USPQ 347 (CCPA 1965), which recognizes that the combination of well known elements i.e. power and data, is normally not desired toward patentable subject matter.

4. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthies and Cok in view of Ogino et al. (U.S Patent No. 6,791,513).

In reference to claim 29, Cok discloses is provided through the use of a *serial electronic connection* from one display tile to the next and originating from a single controller and Ogino discloses an emissive display tile assembly (100) is provided with a power input and/or a power output connection for receiving power from or transmitting power to another emissive display tile assembly (100) via any of a multi-line connection (106) in Figs. 1, 2, 3, 7 and 12 as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention to utilized the power connection as taught by Ogino in the combination display device of Matthies and Cok so that a user can freely and easily change a size of the screen (col. 3, lines 2-3).

Response to Arguments

Applicant's arguments with respect to claims 1, 3-11, 22 and 24 (see page 7 of the Remarks) have been considered but not persuasive.

With respect to claim 1, as discussed above, Matthies discloses the distributed processing (134) performs real time calculation of the lifetime of the pixels of the correspondent display tile, the decay in the brightness of an OLED pixel that can occurs with aging, ***can be predicted***, i.e. real time calculation of the lifetime of the pixel, by measuring the current and time for particular pixel and integrating the product of current and time. This product can be fitted to a characteristic curve and used to adjust the drive current ***to predict a new drive current*** with restores the original brightness level of the pixel, the process is performed every time, *calculation the lifetime*, the display is turned on to predict a new drive current with restores the original brightness level. As can be seen, although different term is used in Matthies, the processing system of Matthies performs the same function with the claim limitation, perform real time calculations of the lifetime of the pixels that predict a new drive current for the brightness of the pixel that continues go on which restores the original brightness level of the pixel, i.e. performs real time calculations of the lifetime of the pixels (see col. 11, lines 1-15 and rejection of claim 1).

5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., temperature is not mentioned in Matthies as a factor; by calculating the life time of the individual OLED's, it is possible to predict life time of the tile, how long the tile

assembly will continue functionally at 100%; [page 4 of the Remarks]) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. With respect to the 35 U.S.C 103, those claims is rejected by their virtue independent of claim 1 and as discussed in the rejection above.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q. DINH whose telephone number is (571)272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AMR A. AWAD can be reached on (571)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Duc Q Dinh/
Primary Examiner, Art Unit 2629